

Europäisches Patentamt
European Patent Office
Office européen des brevets



(11) **EP 0 890 877 A3**

(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:
05.01.2000 Bulletin 2000/01

(51) Int. Cl.⁷: **G03C 11/02**, G03D 15/00,
G03B 27/52

(43) Date of publication A2:
13.01.1999 Bulletin 1999/02

(21) Application number: 98112808.5

(22) Date of filing: 10.07.1998

(84) Designated Contracting States:
**AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU
MC NL PT SE**
Designated Extension States:
AL LT LV MK RO SI

(72) Inventor: **Miyawaki, Hiroshi**
Wakayama-shi, Wakayama-ken (JP)

(74) Representative:
Petersen, Frank, Dipl.-Ing. et al
Lemcke, Brommer & Partner
Patentanwälte
Bismarckstrasse 16
76133 Karlsruhe (DE)

(30) Priority: 11.07.1997 JP 18656297

(71) Applicant:
Noritsu Koki Co., Ltd.
Wakayama-shi, Wakayama-ken 640-8550 (JP)

(54) **Negative film with identification number, and photographic printing apparatus**

(57) A negative film with an identification number printed directly on a film surface of a non-frame image area (1z) other than frame image areas (1x) with photographic images formed therein.

A photographic printing apparatus for printing a negative film having frame image areas and non-frame image areas other than the frame image areas includes:

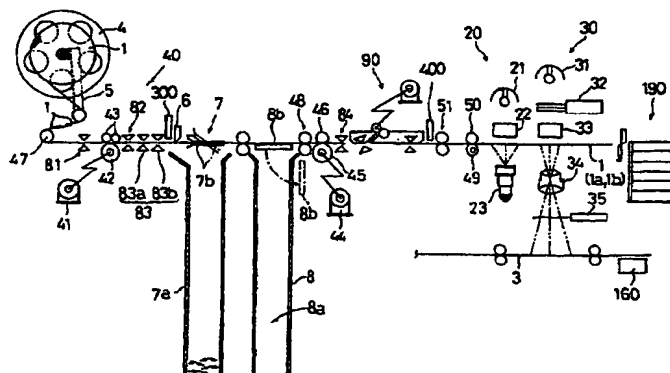
a first identification number reader (300) for reading an identification number printed in a fogged portion formed in the one of the non-frame image areas in

a leading end region of the negative film;

a second identification number reader (400) for reading an identification number printed between perforations formed in the non-frame image areas of the negative film; and

a printer (160) for printing the identification number read on a back of printing paper having, printed thereon, frame images of the negative film with the identification number.

Fig. 6



EP 0 890 877 A3



European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 98 11 2808

DOCUMENTS CONSIDERED TO BE RELEVANT					
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)		
X	US 5 264 683 A (YOSHIKAWA) 23 November 1993 (1993-11-23) * column 1, line 7 - line 15 * * column 1, line 63 - column 2, line 5 * * column 2, line 43 - line 52 * * column 3, line 49 - column 4, line 4 * * column 6, line 50 - line 63 * * column 9, line 1 - line 6 * * column 9, line 46 - line 51 * * column 11, line 34 - line 48 * * claims 21-23 * * figures 1,4 *	1-6	G03C11/02 G03D15/00 G03B27/52		
P,X	FR 2 754 073 A (LEGARGEANT) 3 April 1998 (1998-04-03) * page 1, line 25 - line 27 * * page 2, line 24 - line 30 * * claims 1,4 * * figure 1 *	1,2			
X	EP 0 622 679 A (NORITSU KOKI CO. LTD) 2 November 1994 (1994-11-02) * column 1, line 1 - line 7 * * column 1, line 50 - column 2, line 1 * * column 3, line 15 - line 17 * * column 3, line 51 - column 4, line 6 * * column 4, line 35 - line 55 * * column 5, line 9 - line 13 * * column 6, line 38 - line 49 * * claim 1 *	6	<table border="1"> <thead> <tr> <th>TECHNICAL FIELDS SEARCHED (Int.Cl.6)</th> </tr> </thead> <tbody> <tr> <td>G03C G03D G03B</td> </tr> </tbody> </table>	TECHNICAL FIELDS SEARCHED (Int.Cl.6)	G03C G03D G03B
TECHNICAL FIELDS SEARCHED (Int.Cl.6)					
G03C G03D G03B					
The present search report has been drawn up for all claims					
Place of search MUNICH		Date of completion of the search 12 November 1999	Examiner Binder, R		
<table border="0"> <tr> <td style="vertical-align: top;"> CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document </td> <td style="vertical-align: top;"> T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document </td> </tr> </table>				CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document	T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document	T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document				

EPO FORM 1603 08/92 (P04001)

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 98 11 2808

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

12-11-1999

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 5264683	A	23-11-1993	JP 2685974 B	08-12-1997
			JP 4143760 A	18-05-1992
			JP 2682735 B	26-11-1997
			JP 4145435 A	19-05-1992
			JP 2685975 B	08-12-1997
			JP 4147260 A	20-05-1992
			DE 4132846 A	09-04-1992
FR 2754073	A	03-04-1998	NONE	
EP 0622679	A	02-11-1994	JP 6282045 A	07-10-1994
			CA 2116803 A	26-09-1994
			CN 1095828 A,B	30-11-1994

EPO FORM P0489

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

BLANK PAGE